ABSTRACT

The invention relates to N''-substituted 9a-N-(N'-carbamoyl-γ-aminopropyl), 9a--N-(N'-thiocarbamoyl-γ-aminopropyl), 9a-N-[N'-(β-cyanoethyl)-N'-carbamoyl-γ--aminopropyl] and 9a-N-[N'-(β-cyanoethyl)-N'-thiocarbamoyl-γ-aminopropyl] derivatives of 9-deoxo-9-dihydro-9a-aza-9a-homoerithromycin A and 5-O--desosaminyl-9-deoxo-9-dihydro-9a-aza-9a-homoerithronolide A, novel semi-synthetic macrolide antibiotics of the azalide series, of the general formula 1, wherein R represents H or cladinosyl moiety, R^1 represents H or β-cyanoethyl moiety, R^2 represents isopropyl, 1-naphtyl, 2-naphtyl, benzyl, 2--(trifluoromethyl)phenyl, 3-phenylpropyl, β-phenylethyl, ethoxycarbonyl- methyl, 1-(1-naphtyl)ethyl, 3,4,5-trimethoxyphenyl and 2,4-dichlorophenyl group, and X represents O and S, and their acceptable addition salts thereof with inorganic or organic acids, to the process for preparation of their pharmaceutical compositions as well as the use their compositions in the treatment of bacterial infections.